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Before the  
FEDERAL COMMUNICATIONS COMMISSION  
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FEDERAL COMMUNICATIONS COMMISSION  
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In the Matter of	)	
	)	
Implementation of Sections 309(j) and	)	
337 of the Communications Act of 1934	)	WT Docket 99-87
as Amended	)	
	)	
Promotion of Spectrum Efficient Technologies	)	
On Certain Part 90 Frequencies	)	RM 9332
	)	
Establishment of Public Service Radio Pool	)	
in the Private Mobile Frequencies Below 800 MHz	)	

**COMMENTS OF INTEK GLOBAL CORP.**

Intek Global Corp. (Intek), pursuant to Section 1.415 of the Commission's Rules, 47 C.F.R. § 1.415, hereby respectfully submits the following comments in response to the *Notice of Proposed Rulemaking* released on March 25, 1999, in the above captioned proceeding.<sup>1</sup>

**I. INTRODUCTION**

Intek, through its wholly owned subsidiaries Intek License Acquisition Corp. (ILAC) and Roamer One, Inc. (Roamer), owns, operates and manages two-way Private Mobile Radio Service (PMRS) stations in the 220-222 MHz frequency band. As a manufacturer of mobile communications, Intek has developed and patented a proprietary linear modulation (LM) technology for various wireless telecommunications applications including specialized mobile radio and land mobile radio. Intek's LM technology operates as a narrowband technology in a manner designed to capitalize on the need for more efficient use of radio spectrum. Through its

<sup>1</sup> "In Re Implementation of Sections 309(j) and 337 of the Communications Act of 1934 as Amended, Promotion of Spectrum Efficient Technologies on Certain Part 90 Frequencies, Establishment of Public Service Radio Pool in the

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subsidiary Midland USA, Inc., Intek distributes its spectrally efficient land mobile equipment to serve the needs of the 220 MHz band and the private and public safety telecommunications markets.

From the perspective of both a service provider and a manufacturer of mobile communications, Intek has a strong interest in spectrum efficiency and spectrum allocations for private wireless radio users. By continuing to license private wireless spectrum on a first come, first served basis, the Commission can ensure that users with specialized communications needs will have continued access to capacity. Instead of contemplating rule revisions to force auctions for private wireless services, the Commission should use this *NPRM* as a vehicle to explore whether spectrum efficiency can be improved for the frequencies bands allocated to private wireless users.

## **II. DISCUSSION**

This *NPRM* seeks to implement Sections 309(j) and 337 of the Communications Act of 1934, as amended by the Balanced Budget Act of 1997. Among the primary inquiries of the *NPRM* is whether the Budget Act amendments require the Commission to reevaluate its previous determinations regarding whether certain wireless services are auctionable. As part of this inquiry, the Commission seeks comment on whether it should revise its licensing schemes for new and existing services. Intek urges the Commission to avoid revisiting issues of whether certain private wireless services or spectrum allocations should be auctioned. Intek also stresses that the Commission should adopt a broad and consistent definition of public safety throughout its service specific rules.

**A. The Commission Should Adopt a Broad Definition of “Public Safety Radio Services.”**

In Section 309(j)(2), Congress exempts public safety services from the Commission’s auction authority. Intek therefore agrees with the Commission’s proposals to include spectrum allocated to the Public Safety Radio Pool within the category of services exempted from competitive bidding, and to retain its various spectrum allocations for public safety services. These decisions correctly interpret the Congressional intent of the Budget Act amendments. Intek notes, however, that the implementation of the Budget Act provides the Commission with a valuable opportunity to harmonize its definitions of public safety throughout its service specific rules, and to do so in a manner consistent with the broad exemption envisioned by Congress. Currently, the Commission’s definition of public safety differs across frequency bands. For instance the definition of “public safety services” in Section 90.20 differs from the definition in Section 90.720.<sup>2</sup> By adopting a single and broad definition of public safety services, the Commission can resolve these service specific discrepancies and ensure equitable treatment of such services across frequency bands.

Moreover, although Congress titled its exemption “public safety radio services,” it intended the exemption to apply broadly to both public safety and private wireless services. Insofar as the Commission has concluded expansive rulemakings to allocate spectrum for private wireless licensees, and has determined that certain users have communications demands that are incompatible with competitive bidding, nothing in the Balanced Budget Act amendments directs the Commission to revisit these decisions. Given the Commission’s carefully considered determinations regarding which services are suitable for auction, it should not interpret the

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<sup>2</sup> See 47 C.F.R. §§ 90.20; 90.720.

amendments to Section 309(j) to mandate a complete overhaul of its present methods of licensing private wireless spectrum.

Additionally, although Intek opposes the use of competitive bidding for all private wireless spectrum, including that allocated for public safety purposes, if the Commission determines that it must employ auctions to allocate certain private spectrum, then Intek supports the Commission's proposal to allow public safety entities to participate in such auctions if they so desire.<sup>3</sup> While it is true that applicants seeking spectrum for public safety services can apply for spectrum that has been allocated for that purpose, or can file a waiver request for unassigned spectrum pursuant to Section 337(c), Intek believes that the Commission's rules should not employ eligibility requirements to foreclose public safety providers from any other avenues of acquiring spectrum.

**B. The Balanced Budget Act Amendments Do Not Require the Commission to Revisit Established Licensing Methods for Private Wireless Radio.**

As noted by the Commission, "the Balanced Budget Act of 1997 left unchanged the restriction that competitive bidding may only be used to resolve mutually exclusive applications."<sup>4</sup> Thus, the Commission's auction authority only triggers in instances of mutual exclusivity. Further, Congress has statutorily directed the Commission to steer clear from such situations. Specifically, under its revised auction authority, Section 309(j)(1) directs the Commission to comply with its obligations under Section 309(j)(6)(E) "to continue to use engineering solutions, negotiation, threshold qualifications, and other means in order to avoid mutual exclusivity."<sup>5</sup> Based on the Balanced Budget Act amendments, Intek believes the Commission now has an independent

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<sup>3</sup> See *NPRM* at ¶ 85.

<sup>4</sup> *Id.* at ¶ 19.

<sup>5</sup> 47 U.S.C. § 309(j)(6)(E).

obligation to pursue strategies to avoid mutual exclusivity before it conducts a Section 309(j)(3) analysis to consider the public interest factors of a particular licensing scheme.

As the Commission is well aware, the licensing methods currently employed for nonauctionable services successfully avoid most instances of mutual exclusivity. The *NPRM* specifically states “that because services previously determined to be nonauctionable are generally licensed by processes that do not result in the filing of mutual exclusive applications, unless [the Commission] alter[s] these licensing schemes, licenses in these services will not be auctionable under the Balanced Budget Act.”<sup>6</sup> Intek agrees with this analysis. Further, Intek urges the Commission to refrain from revising its rules in a manner that forces the filing of mutually exclusive applications simply as an excuse to pursue competitive bidding for spectrum currently allocated for private wireless purposes.

For the type of service employed by most private wireless users, site by site first come, first served licensing is a more appropriate spectrum allocation method than geographic licensing. Further, most private wireless users have targeted communication needs which are inconsistent with the large regional or economic area licenses auctioned by the Commission. The timing and structure of auctions also do not comport with the needs of the majority of private wireless users. Thus, it is with such understanding in mind, that the Balance Budget Act amendments permit the Commission to employ competitive bidding to resolve mutual exclusivity, but not to create it.

Given the nature of private radio use, and in light of the Commission’s current methods for licensing private wireless spectrum, occasions of mutual exclusivity are rare. For example on March 31, 1998, the Commission lifted the filing freeze to accept applications for the public safety channel pairs in the 220-222 MHz band. This filing window resulted in very few, if any,

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<sup>6</sup> *NPRM* at ¶58.

instances of mutual exclusivity. Moreover, where mutual exclusivity does arise, resolution can be accomplished easily through first come, first served processing. Because the processes currently employed by spectrum coordinators are consistent with the intent underlying the Congressional directives in Section 309(j)(6)(E), the Commission should not seek alternatives for licensing private wireless spectrum.

Similarly, the Commission should not revisit its regulatory classifications for commercial mobile radio service (CMRS) and private mobile radio service (PMRS) providers. The Commission went to great pains to establish regulatory policy in this regard, and nothing in the Balanced Budget Act amendments requires it to revisit these regulatory distinctions. As the Commission notes in this proceeding, the regulatory classification of PMRS is separate and apart from term “private service” as used by Congress because PMRS “is defined on the basis of several criteria that are not relevant to Section 309(j), such as whether interconnected mobile service is provided for a profit to the public or a substantial portion of the public.”<sup>7</sup> Intek therefore urges the Commission to continue to employ this reasoning, and to continue to recognize that there are significant, as well as statutory, reasons to maintain the regulatory distinctions between CMRS and PRMS providers.

Furthermore, Intek believes that the Budget Act amendments do not require the Commission to reevaluate its multiple licensing decisions. Multiple licensed private communications systems provide spectral efficiency through shared use. Moreover, such services are easily distinguished from commercial service due to differences in the geographic area served, the use of capacity, the scope of the service provided, and the customer base.

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<sup>7</sup> See *NPRM* at ¶19, n.38.

Accordingly, Intek believes the Commission should neither eliminate nor modify its multiple licensing rules.

Under the Budget Act amendments, where a particular service does not fit into the Congressional exemption for public safety radio services, and where the Commission receives a request to provide service on the same frequency in the same or overlapping service area, then the Commission has the authority to employ auctions if doing so serves the public interest. Yet, Intek strongly believes that the Commission should not, and is not permitted to, establish rules in a manner to force the issue simply as a basis to justify the use of competitive bidding. The Commission should therefore refrain from revising its licensing rules to adopt geographic licensing with large filing application windows for private wireless services. To do so would minimize the Commission's obligations "to continue to use engineering solutions, negotiation, threshold qualifications, and other means in order to avoid mutual exclusivity."<sup>8</sup>

**C. The Commission Should Explore the Benefits of User Fees for Private Wireless Radio.**

The Commission should seize upon the implementation of the Balanced Budget Act amendments as an opportunity to explore methods to more efficiently allocate spectrum in services it has determined to be nonauctionable. Intek believes that license fees for private wireless users provide an incomparable method to allocate the true costs of service and spectrum usage in an economically efficient manner. Such fees could serve as a valuable counterpart to auctions in order to ensure that licensees strive to achieve spectrum efficiency in services that are not appropriate for auction.

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<sup>8</sup> 47 U.S.C. § 309(j)(6)(E).

Intek understands that the Commission does not currently believe that it has the statutory authority to employ spectrum fees in lieu of auctions.<sup>9</sup> However, the implementation of these Budget Act amendments provides the Commission with a unique opportunity to pursue and further explore such possibilities. Currently, licensees have very little incentive to deploy new technology unless increased efficiencies in their overall business operation occur as a result. Further, inefficient use is not properly monitored. For the most part, there are also no penalties associated with the licensing of more mobiles than are in operation, use of multiple channels, inefficient practices, or claims of large areas of operation and high spectrum power density.

Through the use of user fees the Commission could facilitate the introduction and use of spectrally efficient technologies. For instance, renewal fees established at levels that more properly reflect the value of the license, and that are based on the amount of spectrum, the number of units and occupancy and the service area of the license could encourage an earlier adoption of more spectrally efficient technology in the licensee's primary service area. Now that the Commission has transitioned to electronic filing, such renewals could be processed automatically and at very little additional expense. Likewise, a revised fee structure based on efficient use could encourage license modifications and database updates that improve the Commission's overall spectrum management.

If economic consequences attach to inefficient spectrum use then licensees will reevaluate their consumption of spectrum. For example, channel hoarding, the holding of an exclusive license without construction or operation of stations using the frequencies, could be further diminished if there is a negative economic impact. Similarly, licensees who seek large service areas or large amounts of spectrum should be willing to pay additional fees to obtain the privilege. If, for instance, a licensee needed exclusive access to 25 kHz of bandwidth over a service area of a circle of a 50 mile radius, the amount that the licensee should pay for that service area should logically be

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<sup>9</sup> *NPRM* at ¶76.



far more than that for a shared use of say 5 kHz within a service area of a circle with a 10 mile radius.

Further, early adopters of highly efficient technology should be granted some form of special dispensation. Thus a potential approach to give existing licensees the incentive to transition to more efficient technology could be to permit those licensees to benefit from some of the increased channel capacity resulting from the change out. The benefits of increased channel capacity could also flow to the public in the form of both capacity or new private systems, and potentially even through revenues derived from auctioning some of this newly created capacity for commercial purposes.

**D. The Commission Should Continue to Encourage Spectral Efficiency.**

Intek therefore encourages the Commission, in conjunction with the private wireless industry, to examine and determine a process whereby existing licensees in the private radio frequency bands can begin to migrate to more spectrally efficient technologies and use. In this regard, the Commission must mandate a date certain where the protection of wideband users becomes secondary to narrower band users. If the Commission uses this rulemaking proceeding to place users on notice that such changes are in store, then the Commission can achieve full migration to spectrally efficient technologies perhaps as early as 2005.

Additionally, the Commission should seize upon this proceeding to provide consistent technical rules across all private wireless services that encourage spectral efficiency and technical flexibility. Specifically, to achieve greater spectral efficiency, the Commission must build upon the recent accomplishments achieved in the *Refarming* proceeding.<sup>10</sup> Furthermore, with regard

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<sup>10</sup> See "Replacement of Part 90 by Part 88 to Revise the Private Land Mobile Radio Services and Modify the Policies Governing Them and Examination of Exclusivity and Frequency Assignments Policies of the Private Land Mobile Services, PR Docket 92-235, *Second Report and Order*, 12 FCC Rcd. 14307 (1997); *Third Memorandum Opinion and Order*, FCC 99-138 (rel. Jul. 1, 1999).

to flexible technical rules, the Commission must strive to progressively resolve interference problems. One previously proposed possibility for doing so is through the introduction of an Adjacent Channel Coupled Power (ACCP) approach for limiting out-of-band emissions. Intek would support the development of rules to adopt such an approach. As Intek has stated in other proceedings, it believes that the use of direct measurements of interfering energy is a more reliable indicator than the Commission's traditional emissions masks.<sup>11</sup> In sum, Intek urges the Commission's to adopt technical rules that promote the most efficient and economic use of the limited spectrum available for private wireless operations.

### III. CONCLUSION

As explained fully above, Intek urges the Commission to adopt its positions regarding the implementation of the Balanced Budget Act amendments of 1997 and the licensing of private mobile radio services consistent with the views expressed in these Comments.

Respectfully submitted,

**INTEK Global Corp.**

By: Michael R.J. Bayly / MAB

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August 2, 1999

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<sup>11</sup> See e.g., Comments of Intek Global Corp. filed on July 19, 1999, "In Re Service Rules for the 746-764 and 776-794 MHz Bands, and Revisions to Part 27 of the Commission's Rules," WT Docket 99-168, *Notice of Proposed Rulemaking*, FCC 99-97 (rel. June 3, 1999).